

TYPE & FIELD OF STUDIES: BSc IN COMPUTER SCIENCE**PROGRAMME TITLE: COMPUTER SCIENCE**

Faculty/ Department; Faculty of Mechanical Engineering
Institute of Applied Computer Science

Duration: 7 semesters

ECTS credits 210

Programme description: This course fulfils basic standards of informatics, including major lectures from the area of algorithms and data structures, microprocessors and architecture of computers, numerical methods, operating systems, programming languages, computer networks, computer graphics, databases, artificial intelligence. The study gives a professional knowledge which allows our graduates for efficient developing and programming applications using C++, Java, PHP etc., designing computer networks and databases. This course also prepares students for designing and working with mechanical engineering applications. Our graduates can work as software developers, network designers, programmers, testers or system administrators in a big sector of software developing companies, engineering industry, industrial plants, banks etc.

Programme of studies:	Hours	ECTS
1st semester		
Basic course		
English language	60	2
Social and vocational aspects of informatics	30	2
Mathematics	90	12
Physical education	30	0
Physics and technical sciences	60	5
Major course		
Programming languages and techniques	60	7
Basics of internet languages	30	2
2nd semester		
Basic course		
English language	60	3
Social and vocational aspects of informatics	30	2
Mathematics	60	7
Physical education	30	0
Physics and technical sciences	105	10
Major course		
Object oriented programming	30	2
Algorithms and data structures	60	6
3rd semester		
Basic course		
Mathematics	90	6
Physics and technical sciences	30	2
Major course		
Object oriented programming	30	2
Basics of database programming	45	3
Microprocessors and computer architecture	45	4
Operating systems	45	5
Software design methodologies and notations	45	3
Computer graphics	60	5
4th semester		
Basic course		
Mathematics	90	7
Physics and technical sciences	15	1
Major course		
Computer networks	60	5
Modeling and visualization	60	4
Design and management of databases	45	5
Informatics metrology	30	2
Finite elements method	60	3
Optional course 1	30	3
5th semester		

Basic course		
Mathematics	30	2
Major course		
Communication man – computer	30	2
Basics of multimedia techniques	30	2
Operational graphics and DTP	30	2
Methods and systems of knowledge engineering	30	2
Software engineering	45	4
Microcontrollers and signal processing	30	2
Group project	30	2
Optional course 2	30	3
Optional course 3	30	3
6 th semester		
Basic course		
Social and vocational aspects of informatics	15	1
Major course		
Image analysis	45	5
Neural networks and genetic algorithms	30	3
Real time systems	30	3
Group project	30	3
Optional course 4	30	3
7 th semester		
Basic course		
Social and vocational aspects of informatics	30	3
Major course		
Experiment and measurement planning DOE	30	3
Diploma course 1: Software engineering		
5 th semester		
Programming of mobile systems	30	3
CMMI and other quality management systems	30	3
6 th semester		
.NET and C# technologies	45	4
Management of informatics systems	45	4
7 th semester		
Production of informatics systems	30	3
Administration and security of computer systems	30	3
Diploma Seminar	30	3
Diploma Thesis	0	15
Diploma course 2: Industrial informatics		
5 th semester		
Measurement and automation systems	30	3
Advanced CAD systems	30	3
6 th semester		
CAE systems	45	4
Engineering applications in C++ and Delphi	45	4
7 th semester		
Computer industrial networks	30	3
Administration and security of computer systems	30	3
Diploma Seminar	30	3
Diploma Thesis	0	15

Web page: <http://www.m7.mech.pk.edu.pl>
Eligibility / Admission: Persons who graduated high school
Tuition fee: 2000 Euro per semester
Contact person: Edward Lisowski, Prof. DSc, PhD; phone #: +48 12 628 33 51,
e-mail: lisowski@mech.pk.edu.pl

Application procedures & deadlines: Scans of the following documents are to be submitted by persons applying for admission by 31 May: - Application Form (available to be downloaded from www.bwm.pk.edu.pl), - high school diploma, - Official Transcript, passport (page with the holder's photo), - doctor's report (available to be downloaded from www.bwm.pk.edu.pl). Note: Both diploma and Official Transcript are to be

officially translated into Polish language. Please send all documents via e-mail to Ms. Kamila Rościszewska at kamir@pk.edu.pl.